



If everybody moved to TOU (flexible) network tariffs, what would vulnerable Victorians experience?



DATA COLLECTION

1. Online survey of ~2,000 Victorians

2. Survey questions re:

- Household structure and appliances
- Vulnerability 'indicators' & Past payment difficulty
- Ability to withstand expense in future

3. Matched at individual level to electricity usage data

4. Used data to calculate two annual network 'bills':

- Conventional tariff
- Revenue neutral TOU tariffs from DBs

PAYMENT DIFFICULTY

Questions asked

Thinking about the past 12 months has your household ever had difficulty or delayed paying your electricity bill?

Available answers

- No, I/we always pay on time
- Borrowed money to pay an electricity bill
- Required an extension of time to pay, or paid late
- Was on special payment plan
- Was disconnected for non-payment

Interpretation of answers

'always paid on time' → no past difficulty

Underlined answers → some past difficulty

CAPACITY TO MEET UNEXPECTED EXPENSE

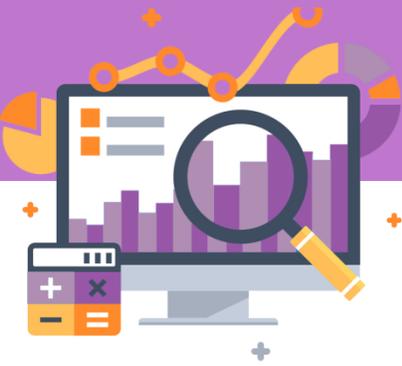
If you had a major unexpected expense for something essential – say, \$400 from a fridge breakdown – how would you pay for it?

- From savings
- Borrow from friends or family
- Pit it on the credit card to pay off at another time (and bear interest)
- Speak to a payday lender
- Not pay for another bills/essentials
- don't know

'from savings' → has (feels) capacity to meet unexpected expense

Any other answer → limit (perceived) capacity to meet unexpected expense

	HAS EXPERIENCED DIFFICULTY	HAS NOT EXPERIENCED DIFFICULTY
Would <i>not</i> pay from savings	293	445
Would pay from savings	53	1,160



ANALYSIS

THREE APPROACHES TO DEFINING VULNERABILITY

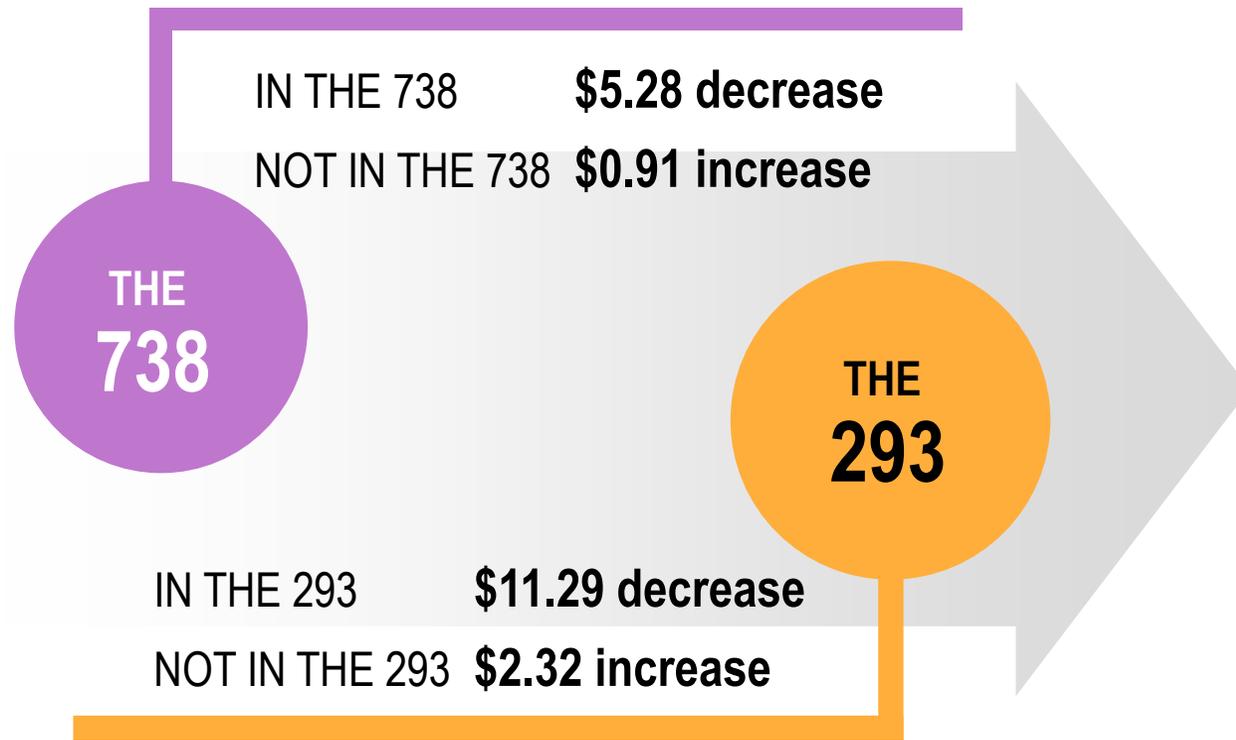
- ▲▲ *a priori* indicator characteristics
- ▲▲ Past payment difficulty *and* perceived difficulty funding an unexpected \$500 expense (n=293)
- ▲▲ Bill impact and perceived difficulty meeting unexpected expense *regardless* of past (n=738)

FOUR ANALYTICAL APPROACHES

- ▲▲ Impact by 'characteristic A'?
- ▲▲ Impact on people with limited ability to meet expense – do these people experience increases or decreases and 'who are they'?
- ▲▲ Impact on 293 people with payment difficulty and limited ability to meet expense – do these people experience increases or decreases and 'who are they'?
- ▲▲ 'all else constant' analysis of bill impacts – what factors are associated with impacts and how large?
 - ▲▲ Leads to 'personas' not presented today

AVERAGE IMPACTS

Average bill impact on the whole sample (1951) – \$0.28 increase



	AVERAGE	INCREASE	DECREASE
Overall	\$0.28	1174	777
JEN	\$1.17	115	93
CP	(\$0.78)	58	67
PC	\$0.39	332	261
Ausnet	(\$1.76)	448	171
UE	\$3.09	221	185

IMPACTS – BY CHARACTERISTIC



Indicators partly based on earlier work by Victorian Government



Dollar values are average 'network bill' impact within the group (negative is good)



The more vulnerable group – either larger decrease or no different for all characteristics

	MOST VULNERABLE	LESS VULNERABLE
	<\$52,000	>\$52,000
INCOME	-\$1.11 (765)	\$1.17 (1186)
	Nobody in house works full time	At least one full time worker
FT WORK	-\$1.41 (1016)	\$2.11 (935)
	Single parent family	Not a single parent family
SINGLE PARENT	-\$9.51 (89)	\$0.75 (1862)
	Children	No children
CHILDREN IN THE HOME	-\$0.45 (533)	\$0.21 (1418)
	Retired	Not retired
RETIRED/ RETIREMENT INCOME	-\$0.46 (597)	\$0.20 (1354)
	No gas	Has gas
MAINS GAS	-\$13.86 (328)	\$3.14 (1623)
	Rental	Owned/ mortgage
HOUSEHOLD TENANCY STATUS	-\$4.98 (466)	\$1.93 (1485)
	Concession	No Concession
ELIGIBLE FOR CONCESSION	-\$1.59 (737)	\$1.41 (1214)

PAST PAYMENT DIFFICULTY



- 
738 respondents report limited capacity to meet unexpected expense

- 
293 of these also report difficulty paying energy bills in the past
 - 
 These people are in old, leaky houses with electric heating, few appliances, low incomes

- 
150 of these 293 most vulnerable people (~51%) can expect a decrease in their bill

	Decrease	no change (=/- \$10)	Increase	TOTAL
Limited capacity	94	120	79	293
Pay from savings	91	190	164	445
	190	321	227	738
Limited capacity	150		143	293
Pay from savings	171		274	445
	336		402	738

THE SHIFT TO FLEXIBLE TARIFFS *RELIEVES PRESSURE* ON AROUND HALF OF THE MOST VULNERABLE IN THE SAMPLE

IMPACT ANALYSIS – NOT FROM SAVINGS AND PAST DIFFICULTY

	VULNERABLE	OTHER
Proportion of customers with bill decrease	32%	19%
Proportion of customers with no change (=/- \$10 p.a.)	41%	41%
Proportion of customers with bill increase	27%	40%
Sample size	293	1658

32% of vulnerable group experiences decrease, another 41% experience +/- \$10/annum change

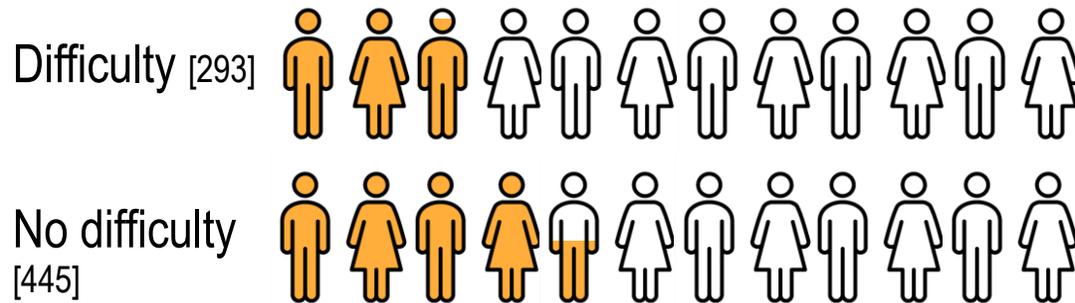
Decreases commonly between -\$30 to -\$170 per annum.
4 cases of increases above \$50 per annum



IMPACT ON PEOPLE WITH LIMITED ABILITY TO MEET UNEXPECTED EXPENSE



LIMITED CAPACITY



PAY FROM SAVINGS



1. Almost 40% of the sample – 738 people – have limited capacity to meet an unexpected expense
2. Three fifths of these people have *not* had (reported) difficulty paying bills in the past
3. We have seen that people with past payment difficulty can expect relief
4. It is possible for people to *become* vulnerable, though they may not have been in the past
 - Do we see this in the data?
 - How might we identify and assist these people?

IMPACT ANALYSIS – NOT FROM SAVINGS AND PAST DIFFICULTY

	VULNERABLE	OTHER
Proportion of customers with bill decrease	25%	18%
Proportion of customers with no change (=/- \$10 p.a.)	42%	41%
Proportion of customers with bill increase	33%	41%
Sample size	738	1213

25% of 'limited capacity' group experiences decrease, another 42% experience +/- \$10/annum change

Most impacts (703 of 738) between \$120 saving and \$60 increase per annum

